

## EAST Search History

| Ref # | Hits   | Search Query           | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|--------|------------------------|---|------------------|---------|------------------|
| L1    | 3860   | "central shaft".clm.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT           | OR               | ON      | 2007/04/11 09:18 |
| L2    | 3365   | I1 and @ad<="20031002" | US-PGPUB;<br>USPAT;<br>USOCR                          | OR               | ON      | 2007/04/11 10:08 |
| L3    | 7      | "stir\$ blade".clm.    | US-PGPUB;<br>USPAT;<br>USOCR                          | OR               | ON      | 2007/04/11 09:40 |
| L4    | 7      | "stir\$ blade".clm.    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR               | ON      | 2007/04/11 09:19 |
| L5    | 7      | "stir\$ blade".clm.    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | AND              | ON      | 2007/04/11 09:19 |
| L6    | 0      | I5 and I2              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | AND              | ON      | 2007/04/11 09:19 |
| L7    | 102342 | blade.clm.             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | AND              | ON      | 2007/04/11 09:19 |
| L8    | 87781  | I7 and @ad<="20031002" | US-PGPUB;<br>USPAT;<br>USOCR                          | OR               | ON      | 2007/04/11 09:19 |
| L9    | 397    | I2 and I8              | US-PGPUB;<br>USPAT;<br>USOCR                          | OR               | ON      | 2007/04/11 09:23 |
| L10   | 3      | I9 and "wash\$ liquid" | US-PGPUB;<br>USPAT;<br>USOCR                          | OR               | ON      | 2007/04/11 09:25 |
| L11   | 190    | I9 and vertical        | US-PGPUB;<br>USPAT;<br>USOCR                          | OR               | ON      | 2007/04/11 09:37 |
| L12   | 3      | I11 and countercurrent | US-PGPUB;<br>USPAT;<br>USOCR                          | OR               | ON      | 2007/04/11 09:26 |

## EAST Search History

|     |       |                           |   |    |     |                  |
|-----|-------|---------------------------|---|----|-----|------------------|
| L13 | 190   | I9 and vertical           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2007/04/11 09:37 |
| L14 | 250   | "vertical blade?".clm.    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2007/04/11 09:38 |
| L15 | 2     | I14 and I2                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2007/04/11 09:38 |
| L16 | 34708 | "vertical direction".clm. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2007/04/11 09:38 |
| L17 | 27901 | I16 and @ad<="20031002"   | US-PGPUB;<br>USPAT;<br>USOCR                          | OR | ON  | 2007/04/11 09:39 |
| L18 | 46    | I2 and I17                | US-PGPUB;<br>USPAT;<br>USOCR                          | OR | ON  | 2007/04/11 09:39 |
| L19 | 0     | I3 and I17                | US-PGPUB;<br>USPAT;<br>USOCR                          | OR | ON  | 2007/04/11 09:40 |
| L20 | 358   | "stirring blades".clm.    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2007/04/11 09:40 |
| L21 | 3     | I2 and I20                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON  | 2007/04/11 10:08 |
| L22 | 135   | (570/101).CCLS.           | US-PGPUB;<br>USPAT                                    | OR | OFF | 2007/04/11 10:09 |
| L23 | 70    | I22 and @ad<="20031002"   | US-PGPUB;<br>USPAT;<br>USOCR                          | OR | ON  | 2007/04/11 10:10 |
| L24 | 111   | (422/31).CCLS.            | US-PGPUB;<br>USPAT                                    | OR | OFF | 2007/04/11 10:10 |

## EAST Search History

|     |       |                                      |                              |    |     |                  |
|-----|-------|--------------------------------------|------------------------------|----|-----|------------------|
| L25 | 92    | I24 and @ad<="20031002"              | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/11 10:10 |
| L26 | 241   | "562/410".CCLS.                      | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/11 10:10 |
| L27 | 41    | L26 and @ad<="20031002"              | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/11 10:10 |
| S1  | 54713 | "562".CLAS.                          | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/10 10:37 |
| S2  | 245   | "562/408".CCLS.                      | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/10 10:37 |
| S3  | 59    | S2 and @ad<="20031002"               | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/11 09:18 |
| S4  | 241   | "562/410".CCLS.                      | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/10 10:38 |
| S5  | 237   | "562/486".CCLS.                      | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/10 10:38 |
| S7  | 136   | S5 and @ad<="20031002"               | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/10 10:39 |
| S8  | 36    | ((HIDEAKI) near2 (FUJITA)).INV.      | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/10 11:02 |
| S9  | 44    | ((HIROSHI) near2 (MACHIDA)).<br>INV. | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/10 11:05 |
| S10 | 2     | ((NOBUO) near2 (NAMIKI)).INV.        | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/10 11:08 |
| S11 | 2     | ((YOSHIO) near2 (WAGURI)).INV.       | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2007/04/10 11:08 |
| S12 | 1     | ("20060254622").PN.                  | US-PGPUB;<br>USPAT           | OR | OFF | 2007/04/10 11:24 |

10/574273 METHOD FOR PROD HI PURITY TAA - text search

=> fil hcaplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'HCAPLUS' ENTERED AT 10:15:08 ON 11 APR 2007

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FILE COVERS 1907 - 11 Apr 2007 VOL 146 ISS 16

FILE LAST UPDATED: 10 Apr 2007 (20070410/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s "central shaft"

399094 "CENTRAL"

29 "CENTRALS"

399117 "CENTRAL"

("CENTRAL" OR "CENTRALS")

41337 "SHAFT"

8141 "SHAFTS"

45638 "SHAFT"

("SHAFT" OR "SHAFTS")

L1 541 "CENTRAL SHAFT"

("CENTRAL" (W) "SHAFT")

=> s "vertical direction"

164974 "VERTICAL"

96 "VERTICALS"

165032 "VERTICAL"

("VERTICAL" OR "VERTICALS")

386818 "DIRECTION"

95708 "DIRECTIONS"

461995 "DIRECTION"

("DIRECTION" OR "DIRECTIONS")

L2 8562 "VERTICAL DIRECTION"

("VERTICAL" (W) "DIRECTION")

=> s l1 and l2

L3 1 L1 AND L2

=> d ibib abs

L3 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:317117 HCAPLUS  
DOCUMENT NUMBER: 144:360260  
TITLE: Process for preparing toner  
INVENTOR(S): Omatsu, Shinichiro; Arita, Shunji  
PATENT ASSIGNEE(S): Kao Corporation, Japan  
SOURCE: U.S. Pat. Appl. Publ., 14 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO.      | DATE       |
|------------------------|------|----------|----------------------|------------|
| US 2006073404          | A1   | 20060406 | US 2005-235169       | 20050927   |
| JP 2006106226          | A    | 20060420 | JP 2004-290840       | 20041001   |
| JP 2006126803          | A    | 20060518 | JP 2005-267255       | 20050914   |
| CN 1755530             | A    | 20060405 | CN 2005-10108734     | 20050929   |
| DE 102005046765        | A1   | 20060420 | DE 2005-102005046765 | 20050929   |
| PRIORITY APPLN. INFO.: |      |          | JP 2004-290840       | A 20041001 |
|                        |      |          | JP 2004-290841       | A 20041001 |

AB A process for preparing a toner comprising the steps of (1) pulverizing a pulverized product of a composition comprising a resin binder and a colorant with a jet type pulverizer in the presence of fine inorg. oxide particles, to give an upper limit cut-off classification powder; and (2) classifying the upper limit cut-off classification powder with a classifier, the classifier comprising a classifying rotor comprising a driving shaft arranged in one casing as a central shaft thereof in a vertical direction, and a stationary spiral guiding vane arranged to share the same central shaft as the classifying rotor, wherein the stationary spiral guiding vane is arranged in a classification zone on an outer circumference of the classifying rotor with a given spacing to the outer circumference of the classifying rotor. The toner obtained according to the present invention can be used for, for example, developing a latent image formed in electrophotog., electrostatic recording method, electrostatic printing method, or the like.

=> s "stirring blades"  
166174 "STIRRING"  
24 "STIRRINGS"  
166188 "STIRRING"  
("STIRRING" OR "STIRRINGS")  
22687 "BLADES"  
L4 519 "STIRRING BLADES"  
("STIRRING" (W) "BLADES")

=> s l1 and l4  
L5 3 L1 AND L4

=> d l5 1-3 ibib abs

L5 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:579665 HCAPLUS  
TITLE: Mechanical aeration plant for treating wastewater  
INVENTOR(S): Sosna, Zdenek

PATENT ASSIGNEE(S): Sbh Water, Spol. S R.O., Czech Rep.  
SOURCE: Czech Rep.  
CODEN: CZXXED  
DOCUMENT TYPE: Patent  
LANGUAGE: Czech  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.    | KIND   | DATE     | APPLICATION NO. | DATE     |
|---------------|--|----------|-----------------|----------|
| CZ 295006     | B6   | 20050518 | CZ 2004-230     | 20040212 |
| WO 2005077840 | A1   | 20050825 | WO 2005-CZ17    | 20050211 |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |          |
| RW:           | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |          |

PRIORITY APPLN. INFO.: CZ 2004-230 A 20040212

AB Two wings (2.1, 2.2) having each the form of a half of cylindrical surface are attached to a central shaft (1). Stirring blades (3.1, 3.2) are attached underneath the wings (2.1, 2.2) to the central shaft (1), too. Between the free end of each wing (2.1, 2.2) and the central shaft (1), there are arranged L-shaped reinforcing ribs (4). Free end of the longer section of each reinforcing rib (4) is attached to the central shaft (1). In the corner, between the shorter and longer sections of each reinforcing rib (4), there is fastened the free end of each wing (2.1, 2.2). The face of the reinforcing rib (4) shorter section overlapping the wing (2.1, 2.2) free end (2.1, 2.2) is pointed. During rotation of the central shaft (1) water level drops off within the space extending between said central shaft (1) surface and inner surface of the wings (2.1, 2.2). Atmospheric air is sucked in that space. Due to mixing the air stream, fine air bubbles being thus generated advance in the direction toward an activation tank bottom. The pointed faces of the reinforcing rib shorter sections cut through a fibrous sludge, reduce consistence as well as sludge index thereof, while the stirring blades ensure hydraulic motion.

L5 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:600626 HCAPLUS  
TITLE: Batch-cycle type heat-treatment apparatus for treating of material like mash fodder as well as a method using such an apparatus for treatment of material  
INVENTOR(S): Aono, Kimi; Sugiyama, Jiro  
PATENT ASSIGNEE(S): Dinnissen B.V., Neth.  
SOURCE: Eur. Pat. Appl.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| EP 1440625  | A2   | 20040728 | EP 2004-75200   | 20040127 |
| EP 1440625  | A3   | 20060524 |                 |          |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK |      |          |                 |          |
| JP 2004222674   | A    | 20040812 | JP 2003-17731   | 20030127 |
| JP 3785555  | B2   | 20060614 |                 |          |

PRIORITY APPLN. INFO.: JP 2003-17731 A 20030127

AB A batch-cycle type heat-treatment apparatus for heating mash fodder includes a heat-treatment unit (2) for treatment of material like mash fodder and a dryer cooler (4) for drying and cooling the heated fodder, and a buffer hopper in which the material is temporarily stored, which buffer hopper (3) is located between the heat-treatment unit (2) and the dryer cooler (4). In one embodiment, the dryer cooler (4) is provided with an agitator (45) including a rotational central shaft (451) and stirring blades (452) having air injectors (453) being capable of spraying air so as to dry and cool the fodder by injecting air while the fodder being stirred.

L5 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1971:13622 HCAPLUS

DOCUMENT NUMBER: 74:13622

TITLE: Manufacturing highly viscous, linear condensation polymers by heating the melted starting components in an autoclave

INVENTOR(S): Teplitzky, Gerald; Gabler, Rudolf

PATENT ASSIGNEE(S): W. R. Grace and Co.

SOURCE: Ger., 8 pp.

CODEN: GWXXAW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| DE 1495986 | A    | 19700205 | DE 1964-G40908  | 19640623 |
| DE 1495986 | B    | 19701029 |                 |          |

PRIORITY APPLN. INFO.: DE 1964-G40908 A 19640623

AB In the title process, the melt is circulated by a multiarmed stirrer which consists of  $\geq 2$  stirrer arms having slanted paddles or blades, and whose arms move in a circle concentric to the autoclave wall. Thus, in an apparatus of the type described above, bisphenol A 2580, Ph<sub>2</sub>CO<sub>3</sub> 2350, and LiH 0.4 g were transesterified 30 min at 210-15° while phenol was removed and polycondensed 4 hr at 280°/0.3-0.5 mm, with the addition of 2.5 g Me<sub>2</sub>SO<sub>4</sub> to neutralize the catalyst, giving a polycarbonate of relative viscosity 2.54 (1% in 3:2 PhOH-C<sub>2</sub>H<sub>2</sub>Cl<sub>4</sub>, 20°). In contrast, 8-9 hr polycondensation time was required to reach the same viscosity in a conventional stirred autoclave with 2 stirring blades projecting from a central shaft.

=> s fujita,h?/au

L6 4679 FUJITA,H?/AU

=> s machida,h?/au

L7 1061 MACHIDA,H?/AU

=&gt; s 16 and 17

L8 2 L6 AND L7

=&gt; d 18 1-2 ibib abs

L8 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:324122 HCAPLUS

DOCUMENT NUMBER: 142:374308

TITLE: Method for producing high-purity terephthalic acid

INVENTOR(S): Fujita, Hideaki; Machida, Hiroshi;  
Namiki, Nobuo; Waguri, YoshioPATENT ASSIGNEE(S): Mitsubishi Gas Chemical Company, Inc., Japan; Toyo  
Boseki Kabushiki Kaisha; Mizushima Aroma Company, Ltd.

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE       |
|---|------|----------|------------------|------------|
| WO 2005033058   | A1   | 20050414 | WO 2004-JP14772  | 20040930   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                  |            |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                  |            |
| EP 1669343  | A1   | 20060614 | EP 2004-773646   | 20040930   |
| R: DE, FR, GB, IT   |      |          |                  |            |
| CN 1819985  | A    | 20060816 | CN 2004-80019539 | 20040930   |
| US 2007015935   | A1   | 20070118 | US 2006-574273   | 20060331   |
| PRIORITY APPLN. INFO.:  |      |          | JP 2003-344002   | A 20031002 |
|   |      |          | WO 2004-JP14772  | W 20040930 |

AB A slurry having AcOH solvent and, dispersed therein, crude terephthalic acid (I) crystals which has been prepared by subjecting a p-alkylbenzene to a liquid phase oxidation in a solvent of AcOH is continuously converted to a water slurry by the mother liquid exchange, and then the resultant water slurry is subjected to a hydrogenation treatment. The above process comprises introducing the AcOH slurry to a tower having a center axis having a plurality of agitating blades at the top thereof, to form a region having a high concentration of I crystals in the tower through the sedimentation of I crystals, supplying the water for substitution to the bottom of the tower in such a manner to form an upward water flow while generating a revolving flow of the high concentration region by the rotation of the agitation blade, to thereby subject I crystals and the upward water flow to a counter-flow contact, and taking out AcOH from a portion being upper than the supply port for the AcOH slurry while withdrawing I crystals having contacted with the upward water flow together with the water for substitution from the tower bottom. This method allows the



substitution of AcOH solvent of the AcOH slurry with water with a high substitution percentage.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1975:506178 HCAPLUS  
 DOCUMENT NUMBER: 83:106178  
 TITLE: Recovery of silver from aqueous solutions  
 INVENTOR(S): Machida, Hirokichi; Fujita, Hideyuki  
 PATENT ASSIGNEE(S): Konishiroku Photo Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| JP 50018318            | A    | 19750226 | JP 1973-69869   | 19730622   |
| PRIORITY APPLN. INFO.: |      |          | JP 1973-69869   | A 19730622 |

AB Ag is recovered from aqueous Ag-containing solns. by bringing the solution in contact with turnings of a light-metal alloy containing Al and Mg. The method is especially useful in recovering Ag from spent photog. fixing baths. Thus, a snugly fitting platform with a perforated top plate was placed in a 10-l. capacity plastic tank, the tank was charged with turnings of a light metal (Al 94.3, Mg 5.6%) 500 g, then covered with a lid equipped with a liquid inlet pipe. A spent photog. fixing solution (6-7 g Ag/l., pH 4.5) was supplied at a rate of 135 ml/min. Reaction was instantaneous, and Ag accumulated below the porous plate. When all of the light-metal turnings were spent, 1950 g of Ag (>96% Ag) had precipitated out.

=> s namiki,n?/au  
 L9 181 NAMIKI,N?/AU

=> s 16 and 17 and 19  
 L10 1 L6 AND L7 AND L9

=> d scan

L10 1 ANSWERS HCAPLUS COPYRIGHT 2007 ACS on STN  
 IC ICM C07C051-47  
 ICS C07C051-265; C07C051-487; C07C063-26; B01D012-00  
 CC 35-2 (Chemistry of Synthetic High Polymers)  
 TI Method for producing high-purity terephthalic acid  
 ST acetic acid solvent mother liq sepn terephthalic acid manuf; liq phase oxidn alkylbenzene mother liq acetic acid sepn  
 IT 64-19-7, Acetic acid, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (substitution of acetic acid solvent with water in production of high-purity terephthalic acid)  
 IT 100-21-0P, Terephthalic acid, preparation  
 RL: PUR (Purification or recovery); PREP (Preparation)  
 (substitution of acetic acid solvent with water in production of

10/574273 METHOD FOR PROD HI PURITY TAA - text search

high-purity terephthalic acid)

ALL ANSWERS HAVE BEEN SCANNED

=> s waguri,y?/au

L11 3 WAGURI,Y?/AU

=> s l6 and l7 and l9 and l11

L12 1 L6 AND L7 AND L9 AND L11

=> d scan

L12 1 ANSWERS HCAPLUS COPYRIGHT 2007 ACS on STN

IC ICM C07C051-47

ICS C07C051-265; C07C051-487; C07C063-26; B01D012-00

CC 35-2 (Chemistry of Synthetic High Polymers)

TI Method for producing high-purity terephthalic acid

ST acetic acid solvent mother liq sepn terephthalic acid manuf; liq phase  
oxidn alkylbenzene mother liq acetic acid sepn

IT 64-19-7, Acetic acid, uses

RL: NUU (Other use, unclassified); USES (Uses)

(substitution of acetic acid solvent with water in production of  
high-purity terephthalic acid)

IT 100-21-0P, Terephthalic acid, preparation

RL: PUR (Purification or recovery); PREP (Preparation)

(substitution of acetic acid solvent with water in production of  
high-purity terephthalic acid)

ALL ANSWERS HAVE BEEN SCANNED

=> d l11 1-3 ibib abs

L11 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:324122 HCAPLUS

DOCUMENT NUMBER: 142:374308

TITLE: Method for producing high-purity terephthalic acid

INVENTOR(S): Fujita, Hideaki; Machida, Hiroshi; Namiki, Nobuo;  
Waguri, Yoshio

PATENT ASSIGNEE(S): Mitsubishi Gas Chemical Company, Inc., Japan; Toyo  
Boseki Kabushiki Kaisha; Mizushima Aroma Company, Ltd.

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND   | DATE     | APPLICATION NO. | DATE     |
|---------------|--|----------|-----------------|----------|
| WO 2005033058 | A1   | 20050414 | WO 2004-JP14772 | 20040930 |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |          |

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
 SN, TD, TG

|                        |    |          |                  |            |
|------------------------|----|----------|------------------|------------|
| EP 1669343             | A1 | 20060614 | EP 2004-773646   | 20040930   |
| R: DE, FR, GB, IT      |    |          |                  |            |
| CN 1819985             | A  | 20060816 | CN 2004-80019539 | 20040930   |
| US 2007015935          | A1 | 20070118 | US 2006-574273   | 20060331   |
| PRIORITY APPLN. INFO.: |    |          | JP 2003-344002   | A 20031002 |
|                        |    |          | WO 2004-JP14772  | W 20040930 |

AB A slurry having AcOH solvent and, dispersed therein, crude terephthalic acid (I) crystals which has been prepared by subjecting a p-alkylbenzene to a liquid phase oxidation in a solvent of AcOH is continuously converted to a water slurry by the mother liquid exchange, and then the resultant water slurry is subjected to a hydrogenation treatment. The above process comprises introducing the AcOH slurry to a tower having a center axis having a plurality of agitating blades at the top thereof, to form a region having a high concentration of I crystals in the tower through the sedimentation of I crystals, supplying the water for substitution to the bottom of the tower in such a manner to form an upward water flow while generating a revolving flow of the high concentration region by the rotation of the agitation blade, to thereby subject I crystals and the upward water flow to a counter-flow contact, and taking out AcOH from a portion being upper than the supply port for the AcOH slurry while withdrawing I crystals having contacted with the upward water flow together with the water for substitution from the tower bottom. This method allows the substitution of AcOH solvent of the AcOH slurry with water with a high substitution percentage.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:373899 HCAPLUS

DOCUMENT NUMBER: 131:183756

TITLE: Abnormal glycosylation of IgG as a clinical parameter in patients with rheumatoid arthritis: its constitutional analysis by HPLC

AUTHOR(S): Mukofujiwara, Yuka; Otsuka, Takanobu; Waguri, Yuko; Matsui, Nobuo; Asai, Kiyofumi; Kato, Taiji; Araki, Hiroko; Tsukamoto, Yoshinori; Takahashi, Noriko

CORPORATE SOURCE: Department of Orthopedic Surgery, Nagoya City University Medical School, Nagoya, 467-8601, Japan

SOURCE: Journal of Clinical Biochemistry and Nutrition (1998), 25(3), 131-142

CODEN: JCBNER; ISSN: 0912-0009

PUBLISHER: Institute of Applied Biochemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To determine the abnormal glycosylation patterns of IgG in patients with rheumatoid arthritis (RA), we analyzed these oligosaccharide profiles using a recently established high-performance liquid chromatog. (HPLC) method. Oligosaccharides of IgG proteins purified from sera of RA patients were labeled with a fluorescent reagent, 2-aminopyridine. The oligosaccharide derivs. were separated into 12 peaks by HPLC, and compared with those of age-matched controls. Serum IgG from patients with RA (RA-IgG) contained a higher content of oligosaccharides with bisecting GlcNAc than normal IgG, which was accompanied by an increase in the

glycosylation of the bisected oligosaccharides. The ratio of the glycosylation of bisected to nonbisected oligosaccharides correlated with RA disease activity as well as with its clin. markers. This ratio reflecting the balance of glycosylation between bisected and nonbisected oligosaccharides may be a useful clin. parameter to monitor RA activity.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:165535 HCAPLUS

DOCUMENT NUMBER: 124:228951

TITLE: Gliostatin as a pathological marker of rheumatoid arthritis and its arthritogenic action

AUTHOR(S): Waguri, Yuko

CORPORATE SOURCE: Med. Sch., Nagoya City Univ., Nagoya, 467, Japan

SOURCE: Nagoya-shiritsu Daigaku Igakkai Zasshi (1996), 47(1), 15-29

CODEN: NASDA6; ISSN: 0027-7606

PUBLISHER: Nagoya-shiritsu Daigaku Igakkai

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB Serum gliostatin (GLS, platelet derived endothelial cell growth factor) levels reflected activity of rheumatoid arthritis (RA), and synovial levels of GLS correlated with synovial interleukin 1 $\alpha$ . The GLS level in RA synovial fluid was 385.5 ng/mL. The synovial GLS level did not exhibit significant correlation with synovial tumor necrosis factor  $\alpha$  (TNF $\alpha$ ) and IL-6 levels. The serum GLS level did not show a correlation with synovial cytokine levels. GLS protein production was induced by stimulation of TNF $\alpha$ , IL-1 $\alpha$ , IL-6, IL-8 and GLS itself in RA fibroblast-like synovial cells. GLS appeared after 18 h of treatment, reaching a peak after 36 h. Inflammation was induced by administration of GLS to the joint cavity by dose and administration-period dependent manners.

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(FILE 'HOME' ENTERED AT 10:14:50 ON 11 APR 2007)

FILE 'HCAPLUS' ENTERED AT 10:15:08 ON 11 APR 2007

L1 541 S "CENTRAL SHAFT"  
 L2 8562 S "VERTICAL DIRECTION"  
 L3 1 S L1 AND L2  
 L4 519 S "STIRRING BLADES"  
 L5 3 S L1 AND L4  
 L6 4679 S FUJITA,H?/AU  
 L7 1061 S MACHIDA,H?/AU  
 L8 2 S L6 AND L7  
 L9 181 S NAMIKI,N?/AU  
 L10 1 S L6 AND L7 AND L9  
 L11 3 S WAGURI,Y?/AU  
 L12 1 S L6 AND L7 AND L9 AND L11